



# OIL ANALYSIS REPORT

## Sample Rating Trend

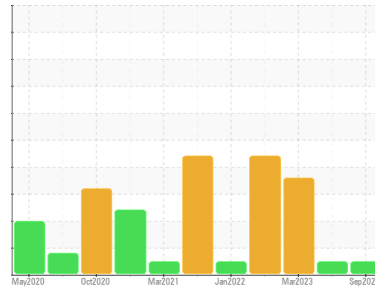
**NORMAL**



Machine Id  
**426026-4675**

Component  
**Diesel Engine**  
Fluid

**DIESEL ENGINE OIL SAE 15W40 (--- LTR)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0065058</b>	GFL0077803	GFL0077796
Sample Date	Client Info	<b>27 Sep 2023</b>	08 May 2023	29 Mar 2023
Machine Age	hrs	<b>37689</b>	37415	37312
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	SEVERE

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	<b>29</b>	18	95
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	1
Nickel	ppm ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>1</b>	5	<1
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>1</b>	0	6
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 250	<b>6</b>	5	6
Barium	ppm ASTM D5185m 10	<b>2</b>	0	0
Molybdenum	ppm ASTM D5185m 100	<b>59</b>	63	52
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	0	1
Magnesium	ppm ASTM D5185m 450	<b>901</b>	1025	1016
Calcium	ppm ASTM D5185m 3000	<b>1015</b>	1141	1186
Phosphorus	ppm ASTM D5185m 1150	<b>978</b>	1098	996
Zinc	ppm ASTM D5185m 1350	<b>1160</b>	1346	1298
Sulfur	ppm ASTM D5185m 4250	<b>2928</b>	3801	3559

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	1	4
Sodium	ppm ASTM D5185m >158	<b>1</b>	<1	<1
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	1	2

## INFRA-RED

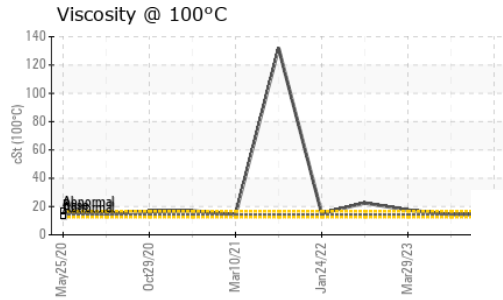
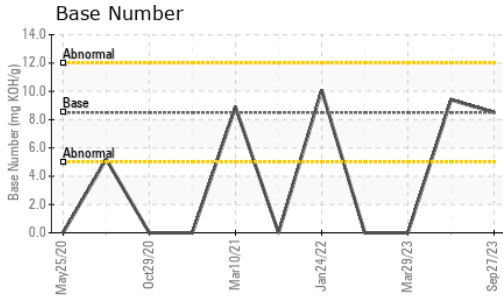
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>3</b>	1.9	6.3
Nitration	Abs/cm *ASTM D7624 >20	<b>8.0</b>	6.5	14.2
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>22.1</b>	19.6	31.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.3</b>	12.2	16.3
Base Number (BN)	mg KOH/g ASTM D2896 8.5	<b>8.5</b>	9.4	0.0



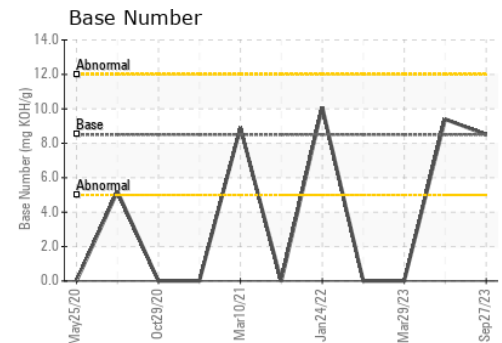
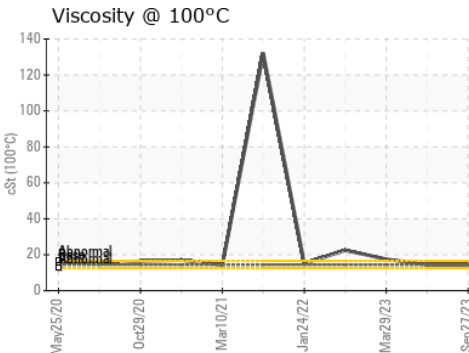
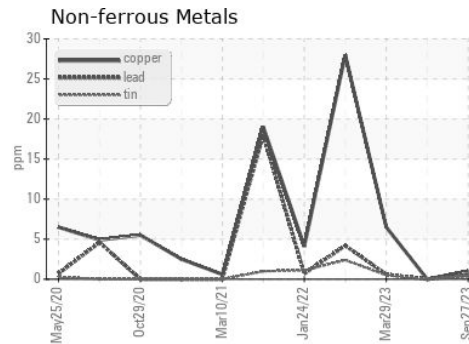
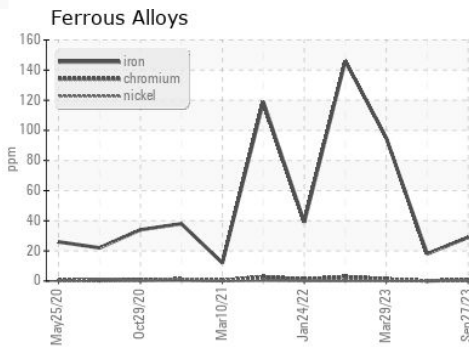
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.4	▲ 17.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0065058 **Received** : 28 Sep 2023  
**Lab Number** : 05964118 **Diagnosed** : 29 Sep 2023  
**Unique Number** : 10670669 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 650 - West Point Hauling**  
 7825 Parham Landing Road  
 West Point, VA  
 US 23181  
 Contact: Jason Smith  
 jasonsmith@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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